

Amendments to the Claims

This Listing of Claims replaces all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): A computer system computer application screen fingerprinter, said computer system comprising:
a processor;
a computer memory coupled to said processor; and
a screen fingerprinter stored in said computer memory, wherein said fingerprinter comprises a decision tree that selects at least one region and/or pattern of ~~[[the]]~~ screens of ~~[[the]]~~ a presentation space of a computer application to be captured such that an occurrence of the at least one region and/or pattern enables the decision tree to uniquely identify each of the screens ~~[[is unique]]~~.

Claim 2 (Original): A computer system as in claim 1, wherein said fingerprinter allows a user to modify which portion of a screen comprises said region and/or pattern and which attributes of said region and/or pattern to examine.

Claim 3 (Currently Amended): A computer system as in claim 1, wherein said fingerprinter creates the ~~[[a]]~~ decision tree based on said at least one region and/or pattern such that after each screen is compared to the region or pattern at each decision node, a screen identifier will come to a different end node of said decision tree for each screen.

Claim 4 (Original): A computer system as in claim 3, wherein said fingerprinter allows a user to modify said decision tree by modifying the comparisons at the decision nodes.

Claim 5 (Currently amended): A computer system computer application recorder, said computer system comprising: a processor; a computer memory coupled to said processor; a user interface and a recorder stored in said computer memory, wherein said recorder records in said

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computer memory a knowledge base [[planned domain file]] which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to reach each state, the available actions from each state of each screen and the effect of any actions available in each state through navigating said computer application in said user interface.

Claim 6 (Original): A computer system as in claim 5, wherein said processor generates said file while a user navigates said another computer system in said user interface.

Claim 7 (Original): A computer system as in claim 5, wherein said processor generates said file while automatically navigating said another computer system.

Claim 8 (Currently Amended): A computer system as in claim 5, wherein a fingerprint of each screen is included in said knowledge base [[file]].

Claim 9 (Currently Amended): A computer system as in claim 5, wherein pre-conditions and post-conditions for each state are included in said knowledge base [[file]].

Claim 10 (Original): A computer system navigation planner, said computer system comprising; a processor; a computer memory coupled to said processor; at least one computer application model stored in said computer memory; and a navigation planner stored in said computer memory; wherein when said navigation planner receives a problem statement, said navigation planner accesses said at least one computer application model to create a plan of solving said problem statement and executes said plan.

Claim 11 (Original): A computer system as in claim 10, wherein when said plan fails, said navigation planner creates a new and different plan to solve said problem statement.

Claim 12 (Currently Amended): A computer system computer application model generator, said computer system comprising:
a processor;

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a fingerprinter;
a recorder; and
a user interface;

wherein said fingerprinter selects at least one region and/or pattern of the screens of the presentation space of a computer application to be captured such that said at least one region and/or pattern of each screen is unique;

wherein said [[state]] recorder records in said computer memory a knowledge base [[planned domain file]] which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to reach each screen, a fingerprint of each screen, the available actions from each screen and the effect of any actions available in each screen through navigating said computer application in said user interface[[]];

wherein additional relationships between said screen and said knowledge base can be input through said user interface such that said computer application model generator can model said computer application.

Claim 13 (Original): A computer system computer application integrator, said computer system comprising: a processor; a computer memory; a runtime agent stored in said computer memory; and at least one computer application model stored in said computer memory, said model modeling at least one computer application; wherein when said processor receives a problem statement, said runtime agent accesses said at least one computer application model to intelligently reason out a goal-oriented plan and accesses the modeled computer applications to execute the tasks necessary to solve said problem statement.

Claim 14 (Original): A method of uniquely identifying the screens of the presentation layer of a computer application comprising the steps of: taking a screen capture of each screen of the presentation layer of a computer application; selecting areas of said screen captures to be examined for the presence of an attribute in said area; and creating a decision tree such that each of said screen captures has a unique end node of said decision tree.

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Claim 15 (Original): A method as in claim 14, wherein said areas are selected automatically.

Claim 16 (Original): A method as in claim 14, wherein said areas are selected manually.

Claim 17 (Original): A method as in claim 14, wherein said decision tree is created manually.

Claim 18 (Currently Amended): A method of recording the states of a computer application comprising the steps of: accessing said computer application; navigating said computer application; and recording in a knowledge base [[planned domain file]] each screen of the presentation layer of said computer application, [[the]] keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen.

Claim 19 (Original): A method as in claim 18, wherein said computer application is navigated automatically.

Claim 20 (Original): A method as in claim 18, wherein said computer application is navigated manually.

Claim 21 (Currently Amended): A method of planning a solution to a problem statement comprising the steps of: receiving a problem statement at a computer system; accessing at least one computer application model that encapsulates information on how at least one computer application is controlled and/or data is accessed; planning at least one [[a]] path through said at least one computer application that will achieve the goal of said problem statement; and executing said at least one path.

Claim 22 (Currently Amended): A method of modeling computer applications comprising the steps of: taking a screen capture of each screen of the presentation layer of a

computer application; selecting areas of said screen captures to be examined for the presence of an attribute in said area; creating a decision tree such that each of said screen captures has a unique end node of said decision tree; accessing said computer application; navigating said computer application; and recording in a knowledge base [[planned domain file]] each screen of the presentation layer of said computer application, [[the]] keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen.

Claim 23 (Currently Amended): A method as in claim 22, further comprising the steps of: allowing a user to insert additional relationships and commands into said knowledge base [[planned domain file]].

Claim 24 (New): A system for navigating an application comprising:

- a processor;
- a computer memory coupled to the processor;
- a screen fingerprinter stored in said computer memory, wherein said fingerprinter comprises a decision tree that selects at least one region and/or pattern of screens of the presentation space of a computer application to be captured such that an occurrence of the at least one region and/or pattern enables the decision tree to uniquely identify each of the screens ;
- a recorder stored in the computer memory, the recorder recording a knowledge base which comprises the plurality of screen captures, one or more inputs and/or programs necessary to reach the application states indicated by each of the screen captures, one or more actions available from each of the states, and the effects of undertaking each of the actions available from each of the states; and
- a navigation planner that receives a problem statement, creates a plan of solving the problem statement by using the knowledge base, and executes the plan,

wherein the creating of the plan by the navigation planner comprises the navigation planner dynamically analyzing a current screen to determine a current state, determining a desired state associated with the problem statement, and dynamically identifying a sequence of the actions from the current state needed to achieve the desired state.